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United States Shipping Industry--Problems and Prospects

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The complex and often contradictory legislation dealing with the U.S. merchant marine has contributed not only to a reduced sealift capability but also to a divided shipping industry. Here one representative of that industry outlines the problem and suggests a solution. A revitalized merchant marine would make it possible for the United States to participate in the rapidly approaching containerization revolution.

UNITED STATES SHIPPING INDUSTRY— PROBLEMS AND PROSPECTS

A lecture delivered at the Naval War College

by

Mr. Stanley Powell, Jr.

A recent issue of the *Armed Forces Journal*, the 15 February issue, devoted itself to the American merchant marine. On the cover is the title, "The U.S. Maritime Mess," and the subtitle reads, "Fourth Arm of National Defense: a Crisis at Sea?" Inside the cover there is an editorial. Some quotes from it are as follows:

> Anyone who understands the U.S. maritime situation just doesn't have all the facts. . . . Operating from one set of facts, one person can reach one conclusion. Operating from an equally valid (but different) set of facts, another person will reach another conclusion the exact opposite of the first. The point is this: No one seems to have *all* the facts. The only point of universal agreement appears to be that the U.S. maritime situation is a colossal mess. Both a political mess and an economic mess. And a mess that, in our opinion, has grave national security implications.

Admiral Colbert last night referred to the maritime situation as "a can of worms." That would have been a pertinent statement for the editorial too.

What I would like to do this morning is to make an effort to open the can and straighten out some of the worms and classify them so that we can see more clearly what the maritime situation is all about. In order to do this, I have divided my comments into four sections. The first one will present a few statistics in order to more clearly define the state of the merchant marine. In the second I am going to try to answer a question that a lot of people pose who are not familiar with the requirements this country has for seapower. The question is: "Why should we continue

to have a merchant marine; why not let it go the way of the horse and buggy?" Third, I want to discuss what I think are the problems and causes of the present state of the merchant marine. Finally, I will make an attempt to list possible solutions that might straighten out the mess.

In going through this I will touch on subjects about which you could write many books. You could have a course here at the Naval War College which could well devote a year to this subject.

Let us start off with some statistics which are an indication of the degree of the maritime crisis. These statistics are the latest available to me, but in the present state of affairs they are constantly worsening. Of all the foreign trade which originates in the United States, all of our imports and exports, we carry only 8 percent in American ships. While it is true that approximately 30 percent is carried by American-owned but foreign-registered vessels, this figure is still a marked decline from the recent past. In 1950 we carried about 40 percent of our imports and exports, and the percentage has been declining ever since. By contrast, in 1968 Japan carried 46 percent of her foreign trade; Sweden, 30 percent; Norway, 43 percent; Britain, 37 percent; France, 48 percent; Greece, 53 percent; and Russia, well over 50 percent of her foreign trade. The Japanese have a stated goal of carrying 60 percent of their exports and 70 percent of their imports in 1975. And all of these countries have a large shipbuilding program to increase their percentages.

The U.S. privately owned freighter fleet in number of ships over 1,000 tons is 5.6 percent of the world's fleet. The rate of increase in our merchant marine, the rate of new building, is about 12 ships per year; in 1964 there were 10; in 1965, 11; in 1966, 12; in 1967, 12. We rank fifth in merchant-ship total tonnage in the world, but this really doesn't tell the whole story because the average age of our merchant fleet is 22 years. These statistics vary in their particulars according to the source of information used, but their thrust is nevertheless the same. Eighty percent of our ships date from World War II, and they are really obsolete. They were nevertheless pressed into service in Vietnam. In comparison, the average age of a Norwegian ship is 6½ years, and the Russians have constructed 80 percent of their present tonnage in the last decade.

Many people do not understand why we need a merchant marine at all. Since it apparently needs millions of dollars in subsidies just to keep limping along, they cannot see why we should not just let it expire and rely on foreign shipping firms.

Perhaps the primary reason that a strong merchant marine is essential is to help meet the present strong Russian economic challenge to the free world. The Russian merchant marine is a grave cold war threat to this country. Recent Russian history is a good example of the importance of seapower, both merchant and navy. In 1962, when the Cuban crisis arose, the Soviets had a very powerful ground army and a large rocket force, but they were still handicapped because they lacked strategic mobility. They could not apply their force. This became so apparent to them during the Cuban crisis that they began to do something about it. They started building ships and placing orders all over the world. A lot of Russian ships are being built by the shipyards of the free world. Eighty percent of the present 11 million tons of shipping has been added in the last 10 years at the rate of a million tons a year. The Russian Fleet, since the Cuban missile crisis, has moved in number of ships from eleventh to sixth place, right behind that of the United States, and soon will overtake our total fleet. In fact, when comparing the two fleets, the United States has about 965 privately owned merchant ships plus only about 240 relatively

serviceable ships in the reserve fleet. The reserve fleet might have an average remaining useful life of 2 or 3 years. The number of useful ships the United States has now, both government and private, including all types, is about 12½ percent of the world's fleet. The Russians now have 1,343 serviceable ships representing 7.3 percent of the world's fleet. The Russian Minister of Mercantile pointed out recently that by 1975 the Russians will have 17 to 18 million tons, continuing the 1 million ton increment per year, and by 1980 she will be up to 23 million tons at the same rate. These figures are rather alarming when one realizes that the leading nation in the free world does not have any real plans to replace ships bordering on obsolescence. Twelve ships a year I regard as not amounting to a replacement program at all.

In 1968 there was more than 2 billion tons of cargo moved in international trade by 46,000 vessels (this includes all vessels over 100 tons) with a total registered tonnage of more than 190 million tons. The Russians have stated that they expect the scope of international shipping by water to reach from 3 to 3½ billion tons per annum by 1980, and they fully expect to have enough ships to get their full share of that tonnage movement.

One of the great concerns of the free world today is the hold the Soviet Union has gained in the Mediterranean, and that hold has been developed through its expansion of naval and merchant seapower. This is one of the first times that all segments of the free world have become worried over developments in this very important international body of water.

The Russians have also used their merchant marine to open up trade channels in Latin America. They recently exchanged ambassadors with Peru and signed a 2-year trade agreement with them, although the precise products and terms are so far uncertain. Russia has also opened embassies in Colombia and Chile as well as Peru. In 4 years Russia has increased her trade with Latin America from $157 to $260 million. Six South American countries now recognize Russia diplomatically.

The constitution of the Russian Fleet is different in many ways from that of other nations. It contains many tankers of 25,000 tons, whereas most other nations today build and use tankers of 100,000 tons or more. The Russians are also building passenger ships, which are no longer competitive with airlines today in most countries.

This diversity is caused by a variety of political and economic motives. Smaller vessels are needed to utilize more effectively the smaller port facilities of Russia and the underdeveloped countries, while the less advanced shipyards of the Soviet Union can more easily produce smaller vessels. Small tankers are necessary for the transportation of smaller quantities of refined petroleum products, as opposed to the bulk shipment of crude oil. These and other factors have mitigated the tendency to construct larger ships.

Many Europeans have minimized the Russian threat. They and some of our own people in Congress changed their opinions last summer when Russia decided it wanted return cargoes for the many ships that are transporting war material into North Vietnam. The logical place to get these return cargoes was Australia which, with the Suez Canal closed, is on the route home to Russia. The Australia-Western Europe Conference, a group of steamship lines, is a closed conference. It limits the number of sailings that its members make on this particular trade route to 72 a year and allots a certain number to each member. By doing this it avoids ruinous competition for the limited amount of business that the route offers each year. The Russians approached the conference and asked for 36 voyages a year as its share. When they were turned down,

they began to trade in the area anyway and cut freight rates. This forced the conference to grant them membership, and the exact number of trips they will receive is still subject to negotiation.

About 4 months after they came into the Australian trade, the Russians decided that another good trade for them would be from Japan to North America. They have recently inaugurated service from Japanese ports to Vancouver, thus undercutting the Japanese who formerly provided the service to that area.

There's some indication that the new administration is concerned about this, and a statement on seapower during the recent presidential campaign was made by President Nixon in Seattle. He said, "The Soviets would not hesitate to use their growing economic power as part of their global strategy. If we permit this decay in our seapower to continue, we will find that we have abdicated our maritime position to none other than the Soviet Union."

If I may digress for a moment, there is a certain element in the Russian approach that we should particularly note in the formulation of a U.S. maritime policy. Unlike the Russians, we have tended to think that our national maritime policy should be concerned with merchant ships as being an end in themselves—that our purpose should be merely to have merchant ships on certain essential routes. What we really should be concerned about here is not ships at all. We should think of trade, and the thinking in our transportation circles should be directed toward creating a total transportation system which will expand the channels of trade so that commodities can be moved from place to place at the lowest cost possible. This is going to take more than just building ships. It is going to take an integrated transportation system with all modes of transportation coordinated in the best possible way. A lot of people regard transportation as a rather unexciting business. To me the business of transportation, particularly from a social point of view, is one of the most important businesses there is. There are countless opportunities to add to the welfare of mankind by creating more efficient ways of moving goods. If you could move goods at greatly reduced cost, it would make quite a difference in the problems of the world. If food could be placed for practically nothing in the very spots where it was most needed, and clothing and other necessities of life could be distributed at very low cost, this would be a real contribution to solving the problems of the world. The application of current technology and innovation in the organization and regulation of transportation systems can accomplish miracles.

Now to get back to my original question, "Why do we need a merchant marine?" My first answer was, "To meet the Russian challenge." The second major answer is economic. It deals with the well-known balance of payments problem. I'm not a monetary expert, but I understand the problem to be that the United States, somewhat like an imprudent housewife, is buying more foreign goods and services than we are selling to foreign countries, and if we continue to do this over an extended period, we will be in serious trouble. I understand we're going in the hole between $2 and $3 billion per year. The solution to this problem has to be a relative decrease in imports and increase in exports.

The use of an American ship instead of a foreign one is equivalent to an export, and, conversely, when a foreign ship carries our foreign trade it is an import. If, instead of carrying 8 percent of our foreign trade as we do now, we carried 50 percent—which seems to me to be a reasonable figure—the entire deficit in our balance of payments would be wiped out. A viable merchant marine could be a major element in the solution of a very serious national problem.

The third major answer is that ships are still a very necessary piece of equipment. There's been quite an argument about sealift versus airlift, both for defense purposes and commercial purposes. In other words, has not the aircraft made the ship obsolete? The World War II *Victories* are certainly too old to fight—the old things would shake apart if they went at full speed. Yet, in the first 2 years of the Vietnam buildup, more than two-thirds of the personnel went mostly by this type ship. After the basic number of troops were over there, most of them were replaced by air. But 98.6 percent of supplies and equipment went by ship in the early stages; 97 percent is still going by ship. In Korea, 99 percent of all the material went by ship. So you can see that in spite of all the money spent on the development of air transport, it has made very little difference, an improvement of only 2 percent since Korea. We have the 747 coming up and the C5A and perhaps larger planes. What difference will they make? My company's wholly owned subsidiary, Matson Research Corp., spends about $600,000 a year on various forms of research in the transportation field. It has carefully evaluated the C5A and the 747 for us, because, being in the steamship business, we are worried about them from a commercial competitive point of view. Our view is that they are certainly going to be an improvement over existing cargo aircraft, but they will not take the bulk of the cargo. They will take the high-rated cargoes which account for perhaps 10 percent of our profit but only about 1 percent or 2 percent of the total tonnage. Thus, if you need to move bulk goods, you're still going to need ships.

Another reason a merchant marine is necessary is to retain some control over the freight charges and tariffs under which our foreign trade is transported. If no American-flag vessels were sailing on the essential trade routes of the United States or even if the number should decline from what it is today, our importers and exporters would be at the mercy of foreign nations. Russia or Japan, through the control they exercise of their merchant marines, could rig the cost of transporting goods to and from the United States in any way to suit their own interests. Only by carrying a substantial portion of our foreign trade in ships subject to control by the U.S. Government can we be assured fair treatment.

A great many other reasons why we need a merchant marine could be cited, but because of time restraints I am going to have to assume I have made my point. The United States should have a first-class merchant marine and a national maritime policy should be developed to see that we have one.

One of the major problems of the merchant marine is that we Americans have a standard of living a great deal higher than other maritime nations and therefore have much higher wages for both shipboard and shipyard laborers and for those performing necessary accessorial services. These relatively high costs become very important when you consider that American ships are in direct head-to-head competition for commercial cargoes with foreigners having considerably lower costs.

A couple of examples will illustrate the magnitude of the cost differentials.

The Matson Navigation Co. is building four practically identical ships: two in a Baltimore, Md., shipyard and two in a German shipyard. The cost of the two American-built ships is just double that of the two being built in Germany—$20,000,000 per ship in the United States and $10,000,000 in Germany. This is a typical, not an unusual, case.

In the case of operating cost of vessels, where wages are the major item, the differential is even greater. I can best illustrate the magnitude involved by describing the operating differential subsidy that 14 American companies receive from the U.S. Government.

The wage element of this subsidy is supposed to equalize the American operator's cost for this item. In other words, the Government pays the difference between the American cost and the cost of the foreign competitors. The differential is calculated separately for every trade route, but it results in a payment to the subsidized lines of close to 75 cents for every dollar they pay out in wages. According to my arithmetic, U.S. operators are therefore paying an average of four times foreign wages. The subsidy may equalize costs for the 14 lines, but it is of no help to the balance of the American merchant marine that pays full wages but does not get operating differential subsidy and must still compete with foreign operators.

A second major problem, and a most controversial one, is the American shipyard problem. I have already mentioned the differential in construction costs between U.S. and foreign shipyards. The U.S. Government has paid up to 55 percent of the cost of construction in U.S. shipyards to equalize this differential, but so far this benefit has only been granted to the same 14 lines which receive operating subsidy. The present laws and regulations of the United States are a major deterrent to any operator who might plan to build ships in a foreign yard and thereby get a competitive ship price. You must have an American-built ship in order to operate in the domestic trade of the United States, to be eligible for operating differential subsidy, and to get preference on American aid cargoes. There have been strenuous efforts to pass legislation which would bar U.S. military cargoes from foreign-built ships. If such legislation should be enacted, it would effectively prevent Americans from building ships abroad.

American shipowners must have ships which they can acquire at competitive world prices. You cannot expect them to pay double cost and then compete for cargoes in the world market. They can only get them by building foreign (very risky as I have indicated) or by getting the construction differential subsidy and building in an American shipyard.

There are two difficulties with the latter option. First, the U.S. Government has given out very little construction subsidy in the last 3 or 4 years, and, with the high-priority expenditures for Vietnam and domestic programs, it is unrealistic to expect very much in the near future.

Second, it takes a long, long time to build a ship which is subsidized by the Government. Seven years would be a good guess of the time it takes to get the design and specifications approved by all concerned and to build the ship with each step being carefully checked by Uncle Sam. With all the innovating going on in the world these days, a ship design can easily be obsolete in 7 years. Thus, as conditions are, it is extremely difficult for an American company to build new ships.

The shipyard problem is a particularly tough one. It is perhaps the major issue dividing the industry. Should the laws be changed to allow Americans to build ships anywhere in the world where they can find the best terms and conditions, or should they be required to build in American shipyards? If the industry cannot agree, the Government will have a difficult time setting a national maritime policy.

A third major problem is the schism that exists between various segments of the American merchant marine. This is true of both the management and labor sides. These differences have effectively prevented the establishment of a solid industry position on what the national maritime policy of the United States should be. On the labor side it causes the various maritime unions to compete with one another to see who can win the biggest compensation package from the employers. This competition causes

incessant work stoppages and has skyrocketed the costs of ship operations.

In my opinion this continuing dissension is caused, in large part, by the nature of the present government program of support to the merchant marine. Every American-flag ship operator receives some form of government support. There are many different kinds of assistance; each kind creates a differently motivated recipient.

First, there is construction differential subsidy and operating differential subsidy received by the 14 subsidized lines to equalize their costs with those of their foreign competitors. These lines also are allowed to deposit earnings in special funds and, by so doing, defer income taxes until funds are withdrawn. The subsidized carriers must agree to serve certain trade routes and replace their vessels in a timely manner in exchange for this assistance.

Second, there is the reservation of all U.S. military cargoes to vessels sailing under the American flag. MSTS contracts are currently awarded after competitive bidding. All American-flag companies are eligible to bid, including the subsidized lines.

Third, there is preference granted U.S.-flag lines in the shipment of foreign aid cargoes under Public Law 480. U.S. ships are assured 50 percent of these cargoes with 50 percent available to foreign operators. All U.S.-flag lines are eligible for this benefit.

Fourth, there is the reservation of the domestic trades of the United States to American ships. No foreign ship is allowed to carry cargo or passengers between U.S. ports. Any American operator is eligible for these trades.

Every American operator is getting in on at least one of these benefits. Many are in on more than one. Some are in on all.

Now, let me give you a couple of examples of how this system of benefits causes dissension.

On the west coast several subsidized and unsubsidized companies bargain with the offshore unions as a group in order to get more bargaining leverage than a single operator would have. It is difficult to keep this group together because of different motivations, vis-a-vis the subsidized and unsubsidized members. The subsidized lines are essentially bargaining with the Government's money. (As the wage differential between these lines and their foreign competitors increase, Uncle Sam picks up the tab.) The unsubsidized operator is bargaining with his own money. The subsidized operator's natural motivation is to bargain hard enough so that the Government will approve the settlement and pay the subsidy. He will probably never take a strike unless he feels it is necessary to convince the Government that he bargained hard. Actually, the higher settlement he can achieve and still get the Government to pay for it, the better off he is in competition with the unsubsidized operators. The unsubsidized operator has to pay the full bill while his subsidized competitors' costs are held constant by the Government. The higher the bill, the greater the cost differential between subsidized and unsubsidized operators. I am sure you can see this has all the elements necessary for a disagreement. I don't wish to give the impression that I am accusing the subsidized operators; I am merely pointing out the motivation the system provides.

Another example of the Government support system causing dissension is in the evaluation of bids for MSTS cargoes. The subsidized and unsubsidized operators are both bidding. Let's say a subsidized operator bids 50 cents a ton lower than the next low bidder who is an unsubsidized operator. The latter can claim that the U.S. Government is already paying the equivalent of about $21 per ton in subsidy to the low bidder, and an appropriate adjustment should be made in his bid. No such

adjustments have been made so far, but the battle is raging.

There are many other examples, but because of time limitations I'll have to let these two give you the idea.

A fourth major problem is the apathetic public attitude towards the merchant marine in the United States as compared to very strong national interest in other maritime countries. In Japan, Norway, and Great Britain the merchant marine is regarded as a very important element in the national economy.

This point was brought home to me in a dramatic fashion a couple of years ago when my company was doing the preliminary work before setting up a new container service between the west coast and the Far East. In Japan it took months and months to get an agreement from the port authorities for the construction and use of terminals suitable for the loading and unloading of containers. The reason was that these authorities and the Government examined our every move against the criteria—is this arrangement in the best overall interest of Japan and the national economy of the country? While we were going through this inch-by-inch process, the American port authorities were actively soliciting and competing with other U.S. ports for the Japanese business. The American way of encouraging competition is undoubtedly the better way for our total long-term economic and political well-being, but it would be better in this case for the two Governments to negotiate with each other for containerization facilities on a *quid pro quo* basis.

So much for the problems. Remember, this is just a surface treatment, and I do not claim to be covering all the problems of the merchant marine. Perhaps these important ones will give you the flavor of the situation.

For example, one of the problems on which I've only touched is the fact that payments to labor are rising much faster than productivity. This alone leads to a deterioration of the economic situation when you are competing on the high seas.

Now what can be done to straighten out this mess? The first thing we must have is a firm enunciation of a national maritime policy. If the national administration expects to get a consensus on the part of the U.S. maritime industry before setting the policy, we will wait till doomsday. Someone, and probably the only one who can do it is the President of the United States, has to take a firm position and set a policy the Government is going to follow whether everyone likes it or not. The maritime industry has been operating in a policy vacuum for the last few years and cannot long survive in this environment.

The United States has to decide whether it wants a merchant marine or not. The impasse in the shipbuilding area must be resolved. Now hardly anyone will build a ship and compete in foreign markets. The only reason my company is building two ships in Baltimore at full American prices is because they're going to be in the Hawaiian trade and will not compete with foreigners. The poor shipper in Hawaii is going to pay the high cost of American shipbuilding. But we need decisions on this shipbuilding issue. I don't know what shipbuilding capacity is appropriate for the United States to have. I can certainly agree that it ought to have something for defense purposes. It should be determined by government, the Department of Defense, and the Navy, those mainly concerned, how many American shipyards are needed for national defense purposes. If it is decided that we need shipyards enough to build all the ships in the merchant marine, that's fine with me. I would like building ships in American shipyards, if they can produce a ship at the same price my Japanese competitor pays. If, in the Government's view, it's worth $600 million a year, or whatever must

be paid in subsidy to these shipyards to allow them to bid competitively in the world market, that's fine. But it has to be decided, one way or the other, so we'll know where we're going. If they decide they don't want a merchant marine at all, I think it's a mistake, but it's all right with me. But then the shackles must be taken off. I still want to stay in the steamship business. I want legislation that will enable me to hire foreign crews, build ships in foreign shipyards, and still be eligible to carry U.S. cargoes. The only person who can really make this decision is Richard Nixon. He has to say, "This is the maritime policy. Even if you don't like it, it's there. This is what we're going to do." And then we know the ground rules under which we're going to operate.

Another thing that must come to pass is that the operators of the steamship companies have to recognize that they have to make their own operations competitive instead of running to the Government for help. There are many things that can be done.

There's a revolution in progress in ocean transportation right now. The technology is available to create ships that are practically automatic. The specialized vessel, the container ship, and new large bulk carriers are all directed toward faster and lower cost cargo handling and speeding turnabout. Bigger and faster ships can cut costs where the trade warrants them. The unitization of cargo in containers provides opportunities in the integration of the various modes of transportation (both land and sea) that has new exciting possibilities.

The automation of ships with the resulting crew reductions is primarily a union problem. Matson has a little ship that carries containers between Honolulu and the other Hawaiian Islands. We designed her for a crew of four; the Coast Guard approved a crew of six as being safe. The union insisted on a crew substantially larger. We had the choice of just tying that ship up and never running it, probably even tying up our entire fleet because of union action, or of agreeing with the union position. We finally settled for a crew of 22 which was less than the original demands of the union. It is important that we have a breakthrough on automation. If we can reduce the labor element of operating our merchant marine, we can compete for world trade. It is in labor cost that a great deal of our competitive disadvantage lies.

Many of the maritime labor leaders have said they would not block automation if we had a national maritime policy of expanding our merchant marine, but they're not going to give away jobs to save an industry that is going to die anyway. I think the union leaders would keep this promise. We will have automation and reduce the ship crews to a reasonable size if there is a viable maritime program.

Containerization or unitization of cargo is a subject that you could write three or four books on. Matson has been carrying cargo in containers for about 12 years; we started in 1958 after 3 years of research and planning before the first container moved.

The principle is simple, you reduce the broad miscellany of sizes and shapes that are characteristic of general cargo to one type of standard unit. Instead of handling a canoe one minute, then a bag of rice, then a 4 by 8 sheet of plywood, you handle a series of units all with the same physical characteristics. This makes possible the use of production-line techniques for loading and unloading cargoes from ships to trucks, to trains, to planes, and vice versa. In the Hawaiian trade it costs $15 per ton, on an average, to load or unload a ton of cargo in the conventional manner. It costs between 50 cents and $1 per ton if the cargo is containerized.

This dramatic savings in cost is quite an accomplishment by itself, particularly when you consider that the

container ship is detained dockside a small fraction of the time the conventional ship is in order to load and discharge. One container ship and one container berth can do the work of several of the conventional type.

These savings I have mentioned are really only the beginning of the possible exploitation of containerization. The high cost of loading or unloading cargo conventionally into trucks, freight cars, or ships created a modus operandi in the transportation business which minimized the number of transfers from one mode of transportation to another and from one ship to another. Thus you have had railroad tracks laid to each major industrial plant in the country with freight cars sitting at each siding while they were loaded or unloaded and then waiting for an engine to become available to pick them up. (I have been told that the freight car utilization in the United States is about 8 percent to 10 percent.) You have had large transocean liners stopping at 10 or 12 ports or more each voyage. It was worthwhile for the ship to go all around Robin's barn to get the cargo to its final destination to avoid extra handling.

The dramatic change in the cost and transfer time of cargo through containerization presents an opportunity to change these old practices. The change has not yet taken place to any extent. When it does, like all major changes, it is going to be tough and bitter.

Let me share my crystal ball with you and take a look at the possibilities of the future.

A container ship, the SS *Newport*, is loaded in Japan destined for Europe. On it will be cargo for Hawaii, west coast of the United States, Puerto Rico, gulf coast of the United States, east coast of the United States, South America, Africa, and Europe. A conventional ship with such a load would take forever to complete the voyage. The container ship stops at Hawaii, unloads cargo for the west coast, United States, and Hawaii and picks up cargo for the beyond ports on its itinerary. The cargo for the west coast, United States, is transferred quickly and cheaply to container ships which are on the regular run between Hawaii and the west coast. SS *Newport* continues through the Panama Canal to Puerto Rico, discharges gulf coast, United States; east coast, United States; Africa; and South America cargo and picks up cargoes from many of these points bound for Europe. The offloaded cargoes are picked up by container ships on regular runs between Puerto Rico and the points mentioned. The *Newport* then proceeds to Rotterdam and unloads its entire cargo. Distribution in Europe is made by regular coastwise container ships or by truck or by rail. I neglected to say at the beginning of our voyage that our ship loaded at only one port in Japan, cargoes from the entire Far East having been brought there by feeder ships on regular container runs. Our container ship has therefore loaded at only one port in Japan, discharged at only one port in Europe, has hardly paused in its direct voyage between Japan and Europe, and yet has provided transportation service to a great deal of the world. I leave to your imagination how the many other trade routes can be integrated into a worldwide transportation system made possible by the very substantial reduction in the cost of transshipping cargo in containers.

An important factor which must be considered when discussing containerization is its tremendously high capital requirements. The terminals are very expensive, and a large inventory of containers isn't cheap. You must have a large volume moving through the system to get the unit cost down. This high volume requirement is going to require mergers and consolidations of transportation companies. A small ship line, railroad, or trucking company cannot hope to accumulate the cargo volume or

the capital necessary to achieve the total potential of containerization.

On the other side of the coin, once you have a container system that is paying for itself, say between San Francisco and Japan, the utilization of your terminals can be increased by adding other trade routes. In other words, a system can be established between San Francisco and Sydney, Australia, on an incremental basis as far as the San Francisco terminal is concerned.

Many of you have heard of the term "land bridge." It is the name given to a concept that would involve transshipping cargo from foreign points of origin to rail in a way that would minimize the water portion of the freight haul. For example, freight bound from Tokyo to New York now moves through the Panama Canal and makes the trip entirely by water. The land bridge would have this cargo transshipped to rail at a west coast port and carried overland to New York. A further example would be freight bound from Tokyo to London. This now moves by ship either through the Panama Canal or Suez (when it's open). The land bridge would move it by ship from Tokyo to San Francisco, overland by rail, then from New York to London by ship.

Let's take a brief look at the economics of the land bridge. Our subsidiary, Matson Research Corp., has done a lot of work on this concept. Most of the cargo movement of the world now takes place within a broad band extending from the Far East through the United States to Europe. This would include cargoes moving all the way from the Far East to Europe as well as between all points within the band.

If the efficiency of the overland container transportation system can be improved and integrated with container ships, we will start to get something that is competitive with the direct sea routes. What we need are trains that operate as a unit between major land ports. The cars would never be uncoupled, would carry nothing but containers, and could be unloaded in a few hours. The containers would be unloaded right onto a truck chassis that would take them to their ultimate destination. There would be no rehandling of cargo, almost 100 percent utilization of rail equipment, and no more rail sidings to every plant in the country. This is a real opportunity to drastically cut transportation costs.

Our research company has worked with railroads and major shippers to determine the feasibility of this scheme and has determined that from the Far East to the Midwest and from Europe to the Midwest, on a fully allocated cost basis the land bridge will have a decided cost and transit time advantage over the most efficient direct container ship operation. On a fully allocated cost basis, the Far East to the east coast of the United States and Europe, and Europe to the west coast of the United States and Far East are competitive with a direct container ship service; but it is close. It should be appreciated, however, that if the Far East-Midwest and Europe-Midwest routes are more efficient than direct ship service and are therefore profitably transporting that cargo, then Far East-Europe cargo is bound to be added to these already existing systems on an incremental cost basis. The direct container ship cannot compete with this. Not included in these figures is the large volume of domestic freight moving between points in the United States which would also be available to the unit train portion of the land bridge system.

From a transportation point of view, the land bridge could make the continental United States similar to a mountain pass which would be the most economical route for a great deal of the world trade to traverse. Control of this pass would present the United States with a lot of options it doesn't have today.

You can see that there are many exciting prospects in the field of transportation. These are not going to be realized easily or quickly. Changes in our regulatory and tariff concepts, the resistance to change by vested interests in industry and in government, the accumulation of capital to do the job are all problems that must be solved. I hope I am alive to see it all come about.

There is one more thing which I think would expedite the transportation of foreign trade. A way should be found to allow binational companies to be formed to provide service between the countries concerned. In other words, a Japanese-American company, each national owning half the fleet, could much more effectively serve the trade between Japan and America than one of either nationality. The Japanese partner would handle cargo solicitation, service, terminal arrangements, government relations, et cetera, in Japan while his American counterpart does the same in the United States. Half the fleet would be American owned, manned by American seamen, and would be available to the United States in time of emergency and would be chartered to the binational company.

It has been difficult to cover a subject as complex as this in a 40-minute talk. I hope I have not tried to cram too much into the time, thereby confusing all of you.

In conclusion, let me give you the main points I think should be included in a new maritime policy.

1. Determine the amount of shipbuilding capacity it is in the public interest for the United States to maintain. Give the necessary shipyards a direct subsidy to the extent that they will be able to compete in the world shipbuilding market. This subsidy should be structured so as to provide the shipyards with an incentive to improve productivity.

2. Relieve Americans of any requirement to build ships in American shipyards. Let them get ships from the lowest worldwide bidder.

3. Enter into treaties with other major trading nations in order to put the merchant marine on the same basis as the airlines as far as container systems are concerned. In the case of the airlines, landing rights in the United States are granted to foreign airlines on a reciprocal basis. If Japan Air Lines is granted 10 landings a week in U.S. cities, Pan American is entitled to an equivalent number in Japan. This same principle would give U.S. ships equal participation in United States-Japanese trade. Realistically speaking, third-flag shipping lines without containerization will find it difficult to compete. The allocation of landing rights between shipping companies would be handled in the same way that it is done with the airlines now.

4. Gradually eliminate operating differential subsidy as treaty negotiations are completed. The elimination of both construction and operating differential subsidies will put all American shipping operators on the same basis and do

BIOGRAPHIC SUMMARY

Mr. Stanley Powell, Jr., has had a distinguished career in the shipping industry. After serving 3 years as an officer in the Naval Reserve during World War II, he was employed by the Matson Navigation Co., a subsidiary of the Oceanic Steamship Co. Beginning in 1958 he moved up within the ranks of the shipping industry, becoming President and Director of Matson Navigation in 1962, President and Director of Oceanic Steamship Co. from 1962 to 1966, and President and Director of Alexander and Baldwin, Inc., in 1966. Today Mr. Powell is chairman of the board of directors for both Matson Research Corp. and the Oceanic Steamship Co., and he has throughout his career been closely associated with new developments in transportation technology.

away with the divisive pressures I discussed earlier.

5. Continue the cargo preference and cabotage laws. All U.S. ship operators are eligible for these benefits, and other countries grant such preferences to their nationals.

6. Adopt a government policy of active support of the merchant marine in a nonfinancial way, primarily by encouraging American shippers to use American ships.

I conclude my comments, except to say that I think this program will put an end to government subsidies, which all of us want. We do not want to be subsidized if we can operate without it. It will put all U.S. operators on the same basis and, hopefully, end the divisions among us. It should provide the stimulus to U.S. ship operators to innovate so that we have the benefit of the most modern technology, and it will give the United States a greater involvement in the transportation of its foreign trade. This kind of a program should also encourage American merchant shipbuilding so that defense needs would be covered.

Thank you very much for your attention. I hope I have straightened a couple of worms for you.

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Sea power in the broad sense . . . includes not only the military strength afloat that rules the sea or any part of it by force of arms, but also the peaceful commerce and shipping from which alone a military fleet naturally and healthfully springs, and on which it securely rests.

Mahan: The Influence of Sea Power Upon History, 1890